THAD Therapeutic Horticulture Activity Database

Activity: Creative Expression Goal: Cognitive Populations: All

TH Activity Plan – Vegetable Sailboat

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Materials

Zucchini, cabbage, carrot

Knife, wooden skewer, string

Paper towels, gloves, wipes

Optional: plates, napkins, vegetable samples

ACTIVITY DESCRIPTION: Participants will make a sailboat from vegetable materials.

THERAPEUTIC GOALS:

Cognitive/Intellectual: Replicate model using reasoning skills; improve verbal communication skills

Physical: Use spatial awareness skills to create model; practice sense of touch & modification of strength/pressure for intricate details
Psychological/Emotional: Expand sense of pride & accomplishment

Sensory: Recognize textural & visual attributes of plants for specific uses

Social: Work with a partner, volunteer or facilitator; present finished model to others explaining how sailboat was built

STEP-BY-STEP PROCESS:

- 1. **Pre-Session Preparation:** Make a sample sailboat. Gather materials.
- 2. Facilitator begins session by presenting vegetables that will be used to make the model sailboat. Nutritional & horticultural information can be included as can tasting the vegetables.
- 3. Distribute the plant materials & begin step by step directions. Slice zucchini in half, sharing half with another participant. Insert feet to make boat stand upright or set on a stable foundation.
- 4. Make the windows in the boat hull using knives or spoons with/without assistance. Use the stem end as the boat's bow/front.
- 5. Peel cabbage leaves from the head. Pass cabbage to another participant to do the same. Using a wooden skewer, dowel or chopstick, insert cabbage leaves through it, then insert into zucchini hull. A second mast/skewer can be added, with its cabbage sails. Direction from facilitator may be required. Attach twine or string to the masts & bow which has a skewer positioned from it horizontally.
- 6. Cut carrots into rounds, attaching them to top of masts/skewers. A carrot round can also be used as the steering wheel at the stern/rear of the boat's deck.
- 7. Clean up work area. Present sailboats to group, taking turns, describing how the boat was made, challenges making the boat, or experiences with real boats. Or create a display; people in treatment rarely get a chance to show off their work.

APPLICATIONS FOR POPULATIONS: Using creative expression and imaginative play to strengthen cognitive function and intellectual skills can make therapy and/or education an intriguing adventure. The TH activity of replicating a sailboat using vegetable materials can require and integrate reasoning skills, contrast and comparison skills, and flexible thinking skills all of which relate to therapeutic goals in this health domain. When adding in the presentation/show and tell component where participants explain how the sailboat was made can extend this activity and incorporate verbal communication skills, and building of self-confidence.

Physical and sensory tasks and goals for this TH activity can involve sense of touch for various vegetable parts, and practice for hand-eye movement. Degrees of touch/strength/pressure cutting boat parts like windows, and zucchini in half can provide practice in developing amount of touch/pressure and dexterity using a plant's forgiving textures. These can be applied to life skills for food preparation and cutting vegetables for consumption. Recognizing sensory attributes of vegetables – their textures, density, color/texture differences between skin and flesh (zucchini for example) can develop skills for comparing and contrasting, as well as sense of adjustment to sensory tactile inputs. Some may prefer to wear gloves, tolerate vegetable skin, others may be squeamish of the vegetable's flesh texture for example.

SAFETY CONSIDERATIONS: Facilitators are responsible for knowing poisonous and toxic plants and plant parts. Use of knives and skewers (pointed or not) may not be appropriate for some populations. Cutting can be done by facilitator, with participants responsible for constructing sailboat from materials that have been pre-cut. Sailboat windows can be made with a spoon to scoop out skin to depth of white pulp/flesh. If tasting produce will occur in session, prior approval should be obtained, relating to allergies, swallowing issues and interactions with medications.

NOTES OR OTHER CONSIDERATIONS: This ingenious plant activity can include growing the vegetables earlier in the season, harvesting and then using for sailboat construction. Or plant materials can be purchased, and introduced as edible and useful materials for creative projects. At completion of project, the sailboat can be deconstructed and the vegetables consumed (raw or cooked, or samples of for tasting prior to construction). Be mindful of eating vegetables (perhaps handled by multiple people and the need to wash produce before consuming). Photos of alternate vegetable sailboat ideas are shown below. Most participants will want to keep their art project to show to family or classmates, and as a reminder of their accomplishment.

Prepping the vegetables for sailboat construction can include removing dirt and excess moisture once zucchini has been cut in half, and carrots sliced. Extra vegetables should be on hand in case of mistakes and breakage of cabbage sails. Select vegetables with appropriate scale; cabbage sails should not overpower zucchini. The bottom of the zucchini may need to have a flat bottom (cut to allow for standing upright), or alternatively, feet that balance the sailboat or other stabilizing mechanisms should be planned for.

Zucchini: A long cylindrical vegetable, sometimes called a courgetti, is firm, dark green skinned, with greenishwhite flesh, & subtle flavor. Nutritional value: manganese, lutein, vitamins A & C, beta carotene, & folic acid. Cabbage: A leafy vegetable with a compact head made of tightly packed layers of thick waxy leaves that can be white, pale green, purple or red. Nutritional value: vitamin C & K, fiber & micronutrients vitamin A, & iron. Carrots: With multiple varieties and colors, this root vegetable grows the edible part underground, tapers at one end, and has feathery green leaves. Nutritional value: antioxidants, vitamin C, A & K, fiber, beta carotene.

REFERENCES/ RESOURCES:

Petre, A. (2023). <u>12 health and nutrition benefits of zucchini.</u> Healthline.com. NC State Extension. (n.d.). <u>Brassica oleracea</u> (cabbage). North Carolina Extension Gardener Plant Toolbox. Nelson, A., & Gatta, F. (2024). <u>How nutritious are carrots?</u> WebMD.com.







Edits were made for THAD purposes in 2024.

TH Activity Plan form developed by Lesley Fleming, Susan Morgan and Kathy Brechner (2012), revised in 2024.